User Manual

G3 dp

Last update: 07/2010

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acoustic line

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Foreword

The G3 dp with integrated 2x1500 Watt digital amplifier electronics and DSP controller houses six 8” low-mid drivers and three 1.4” hf-drivers, using the same technology as the Galeo line array. Unlike the Galeo, each G3 has a fixed vertical dispersion of 20°. Due to the high acoustical output from 80Hz on, it can be combined with the G-Sub or 2x 18” or even 2x 21” subwoofers.

The tilt and pivot frame included as standard facilitates simple alignment of the system. Both, ground stacked and flown applications are possible.

High-grade electronic components from the industrial sector and a first-class circuit design ensure excellent audio quality with low distortion and effectively minimise static noise. Highly efficient and “intelligent” limiter systems ensure optimum protection against overload, without restricting the possibilities offered by this high-performance sound system.

If you would like any additional information on or have any suggestions pertaining to this manual, please contact:

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Technical data are subject to change.

Safety instructions

- acoustic

Even with a low power input the G3 dp unit can produce a hazardous sound pressure level that may cause acute and permanent damage to the ear. Never sit or stand in the immediate vicinity of the loudspeaker during operation and always wear ear protection.
Observe the respective *German trade association regulation BGV B3* pertaining to noise

- mechanical

During assembly and disassembly, moveable devices and falling parts may cause serious physical injury.
Observe the respective *German trade association regulation BGV D8* pertaining to winches and hoisting gear (basic principles of prevention) as well as those regarding event and production facilities for the performing arts.

- magnetic and electrical

Even if not connected to a power source, loudspeakers produce a static magnetic field that can damage cards with a magnetic strip or delete sound recordings and the like. During operation this voltage is also present on the PowerCon Loop Thru input. Observe the respective *German trade association regulation BGV A2* pertaining to electrical equipment and utilities.

Assembly and disassembly must be carried out only by qualified personnel who are familiar with the corresponding regulations and adhere to and act in accordance with them. Please note that all quoted regulations are predominantly applicable in Germany. Work in compliance with the regulations applicable in the country you are in.

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Do not operate the G3 dp if you have any concerns regarding safety or if the loudspeaker box should malfunction. The equipment has no user-serviceable parts inside. In the event of repair, please contact your dealer or qualified personnel respectively.

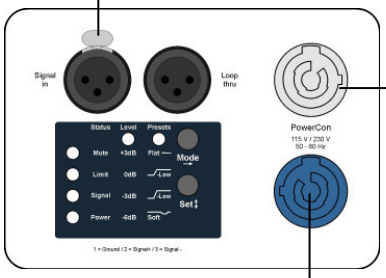
Connect the G3 dp to a 115-230V/50-60Hz grounded safety socket. The equipment corresponds to protection class 1. In case of overload, a protective element is activated which reliably protects the amplifier module and the DSP. However, it must then be replaced by an authorised service centre.
Always remove the mains plug when opening the loudspeaker box (for example when turning the horn).

Do not expose the G3 dp to rain and, if possible, do not operate the speaker outside of a temperature range of -5°C to 40°C. Bear in mind that strong thermal fluctuations result in the formation of condensate, therefore do not operate the speaker until the speaker box has assumed the ambient temperature. Do not switch the equipment off if it is being used in adverse conditions.

In order to avoid overheating of the speaker chassis and the built-in amplifier module, never operate the G3 dp in the close vicinity of intense heat sources and avoid direct sunlight.
After several hours of operation the housing (especially all-metal parts such as the M20 flange and connection panel) can reach temperatures of up to 40°C.

Part 1 – Connections and indicator functions

Connectors

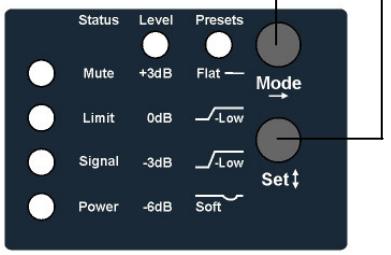


- **XLR In:** The G3 dp is controlled via a conventional symmetrical NF cable. For signal loop-through use the male Loop Thru XLR In. For full conduction the connected signal source should deliver at least 6 dBU undistorted.

- **PowerCon (grey)** 115-230 VAC Loop Thru input. This is required if power is to be supplied to several active speaker boxes and only a 115-230 Volt AC lead is being used. Please observe the maximum permitted connected load. In practice, power can be supplied to up to two additional systems.

- **PowerCon (blue):** Power supply 115-250 VAC. This plug has the same function as an on-off switch. Ensure that a 115-230 VAC mains voltage is available. After switching on (clockwise rotation until it snaps into place), the system starts up and is ready for use within 3 seconds. Avoid continuous switching on and off, particularly when the system is under sustained load.

Control Elements



- **MODE** button: changing to control modes Status / Level and Presets.
- **SET** button: Setting of various values and Mute on/off

Status indicators

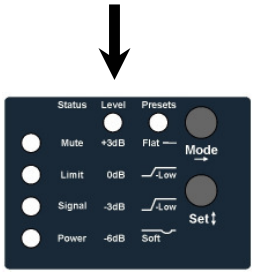
- **Mute LED**: red light when the system is muted (press Set button in Status mode) or under technically crucial conditions.
- **Limit LED:** yellow light when the limiter is restricting the level of at least one amplifier channel.
- **Signal LED:** green light if a signal exceeds –20 dBU. This also applies when the mute function has been activated:
- **Power LED:** lights up when the system is switched on.

Part 2 – Operation

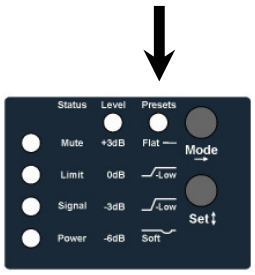
System start-up

The previously selected setting is maintained when the equipment is switched on. The system is then in Status mode. If the red Mute LED lights up according to the previous setting, there is no signal being transmitted. If the Set button is pressed once, the mute function is deactivated, the Mute LED goes off and the system transmits a signal.

Adjusting sound levels



By pressing the Mode button once you will gain access to the Level mode, permitting adjustment of the volume in 3dB stages. Four different values +3dB, 0 dB (standard), -3dB and –6 dB are available. Adjustment is effect via the SET button. The green LED located above it indicates which mode you are currently using, whereby the four vertically arranged LEDs (now green) indicate each value set.



Accessing presets

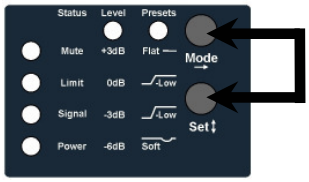
By pressing the MODE button twice you will gain access to the Preset mode. Three different presets and an additional Soft mode can be selected via the SET button:

- **Flat :** This setting facilitates a linear frequency response from 80Hz up. Frequencies below 80Hz are not raised electronically, therefore the use of a subwoofer is obligatory for music transmission.

- **-Low (soft):** The low-mids are reduced for better speech intelligibility. Reduces the low-mid summation taking place when several G3 dp are operated in a line.

- **-Low (hard):** The low-mids are reduced even mor for better speech intelligibility. Stronger reduction of the low-mid summation taking place when several G3 dp are operated in a line.

- **Soft Mode:** Lowers the level within the frequency range of 2.5 – 5 kHz which is sensitive to the ear. This setting is recommended for high level reproduction of highly compressed music tracks. This function operates independently from the choice of the three possible presets.



Lock function: If the SET and MODE buttons are simultaneously pressed for more than three seconds, the operational function is disabled. Press the buttons again in the same way to release the lock.

Assembly Instructions

G3
G Sub

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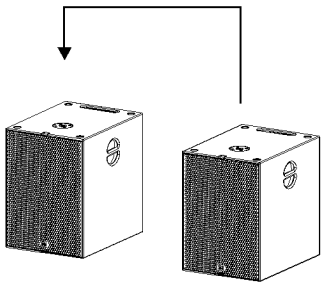
A

Assembly Instructions
G3 - G Sub Stack



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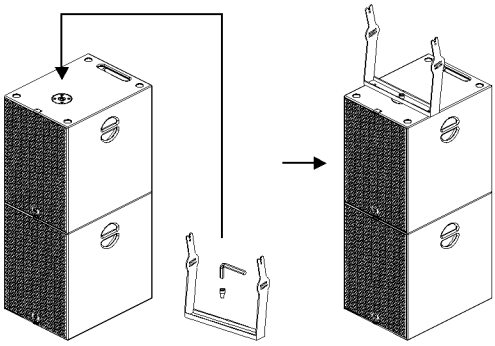

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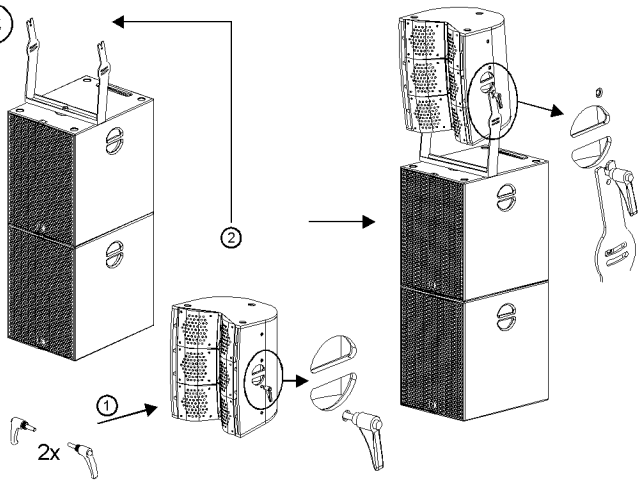

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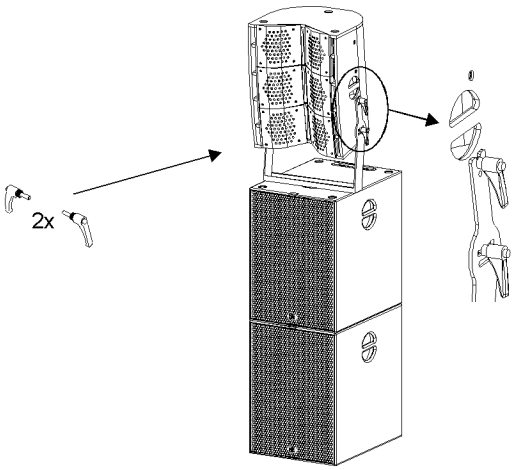

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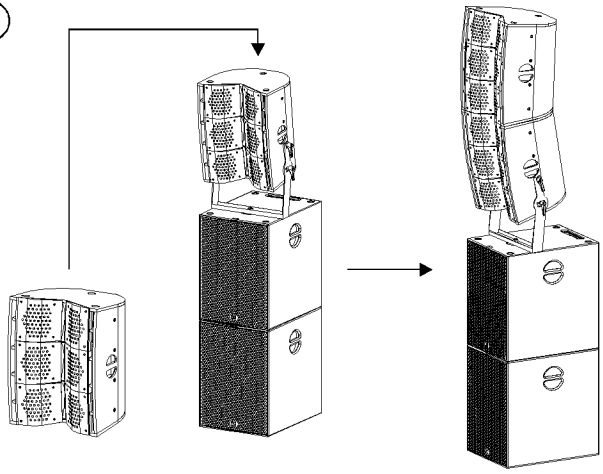

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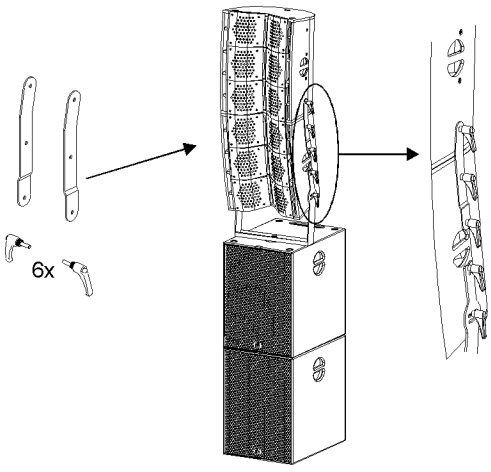

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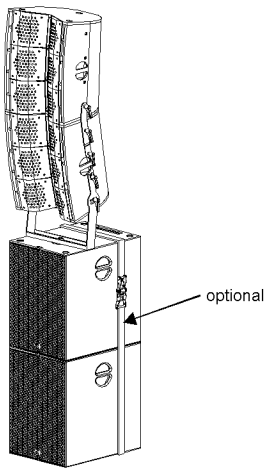
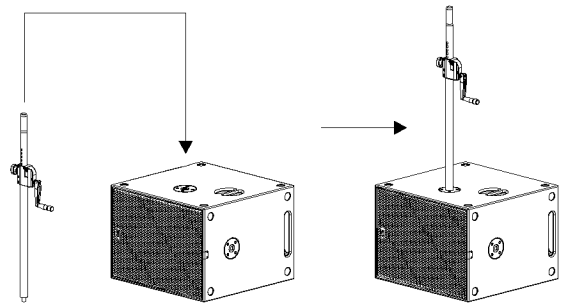


2 x G-Sub Order number: 00600	2 x G3 Order number: 00550
1 x Bracket for G3 Order number: 01350	1 x pair of Connection Bar short for G3 Order number: 08146
1 x M20x30mm Socket head screw DIN 912 1 x Allen wrench	10 x Adjustable clamping lever M10 x 20 mm Order number: 08375/20

A

Assembly Instructions
G3 - G Sub pole mount



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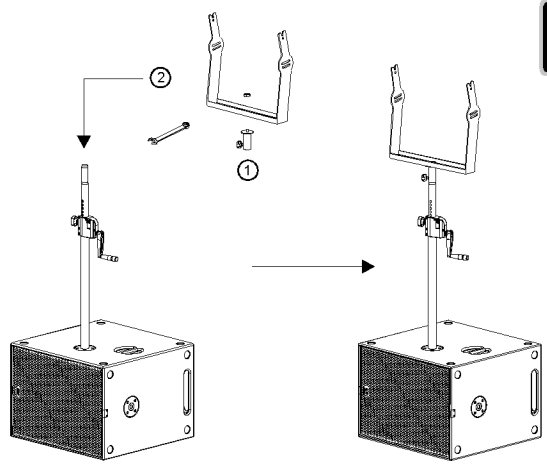

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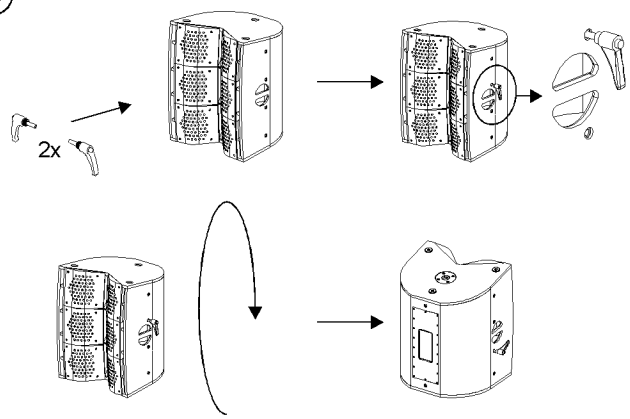

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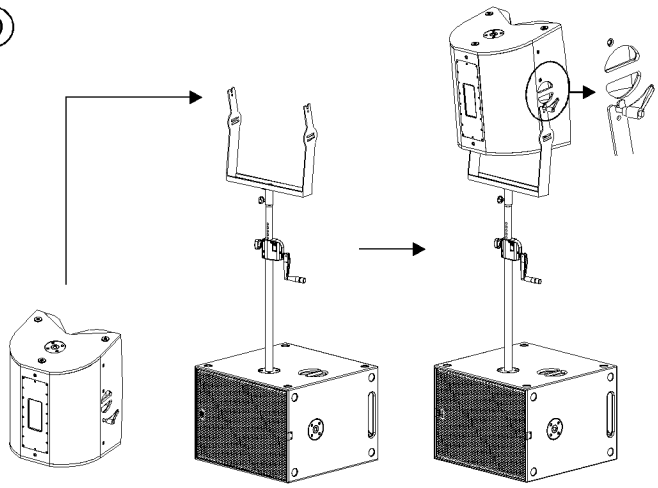

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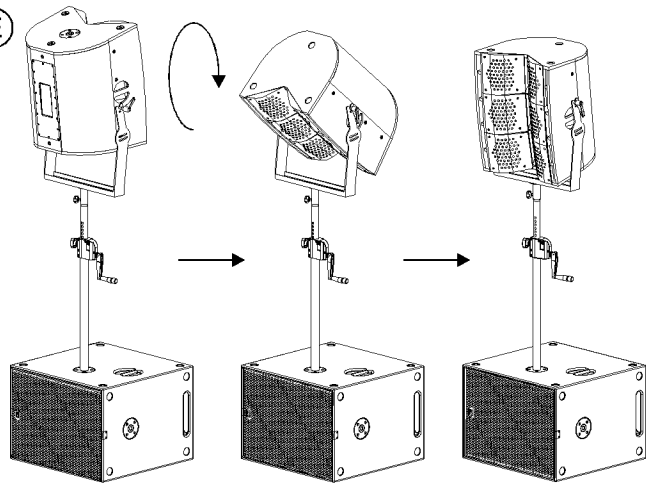

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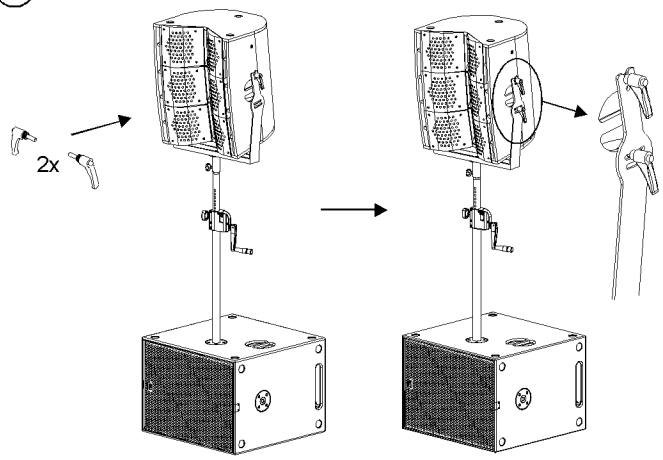

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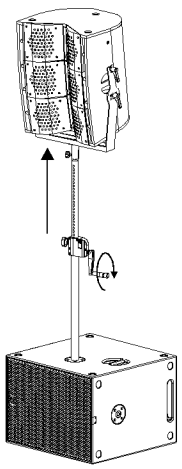


1 x G-Sub

Order number: 00600

1 x G3

Order number: 00550

1 x Speaker Pole
M20
with wind up

Order number: 03023

1 x Bracket for G3

Order number: 01350

1 x M20 Flange for G3

Order number: 08127

M20 self-locking nut

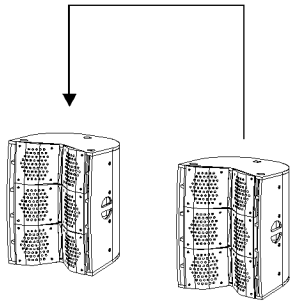
4 x Adjustable
clamping lever
M10 x 20 mm

Order number: 08375/20

Combination wrench

Ⓐ

Assembly Instructions
G3 - flown



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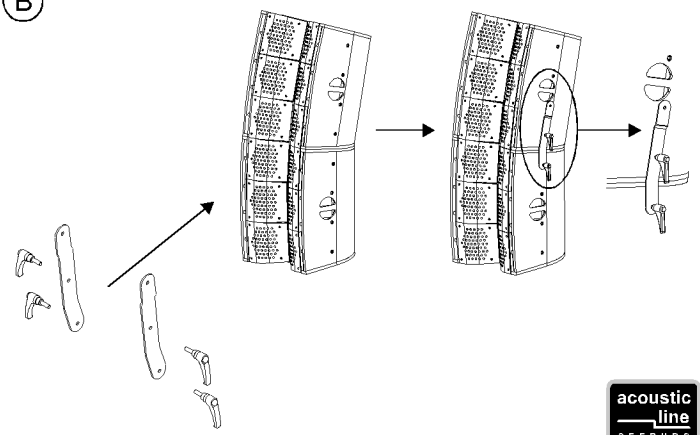

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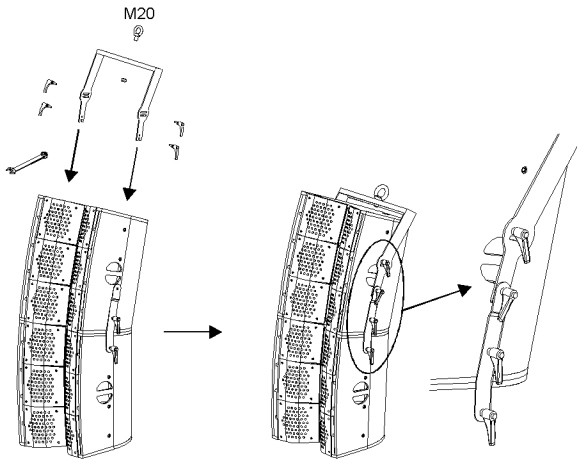

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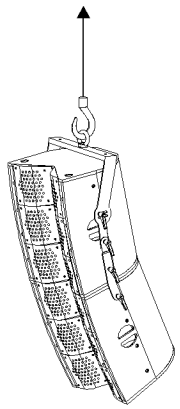

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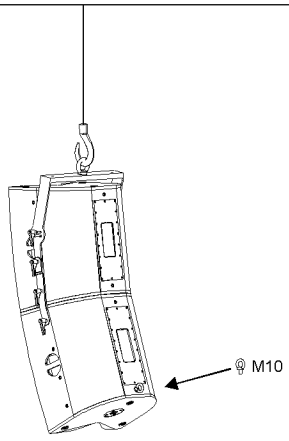

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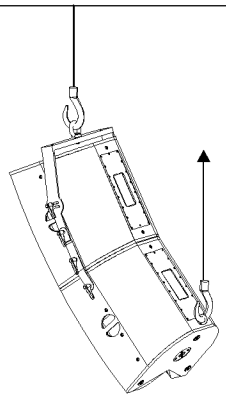

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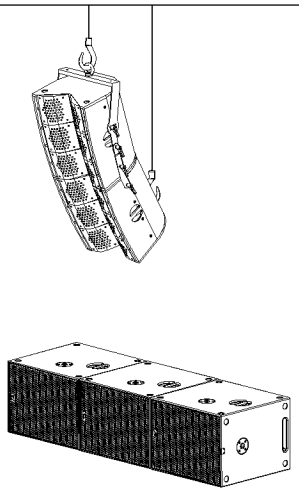

2 x G3 Order number: 00550	1 x Bracket for G3 Order number: 01350
1 x pair of Connection Bar short for G3 Order number: 08146	8 x Adjustable clamping lever M10 x 20 mm Order number: 08375/20
M20 lifting eye bolt M20 self-locking nut	Combination wrench

G3
G Sub

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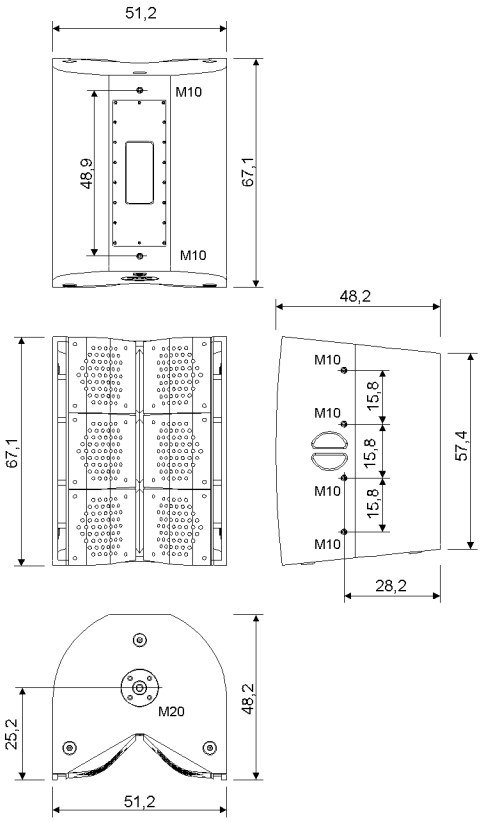
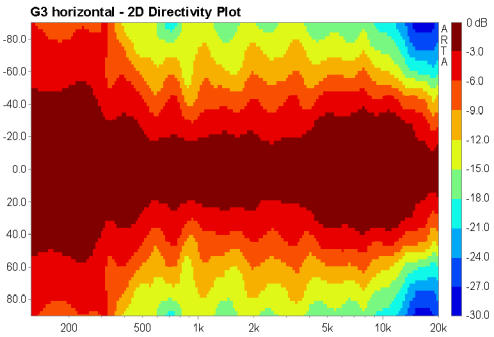
G3

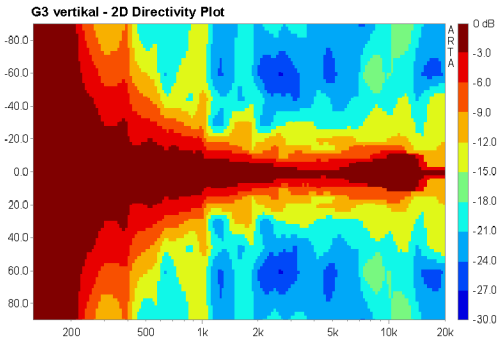
Curved Cylindric Wave Radiator

This system, which is known as a “Curved Cylindrical Wave Radiator“, comprises six 8“ low-mid range drivers and three 1.4“ drivers featuringthe same technology as the Galeo Line Array. However, the G3 has a fixed vertical directivity of 20 degrees. By simply interchanging the two halves of the horn located on the front, horizontal directivity can be increased from 80 to 120 degrees. Throw, maximum distortion-freesound level and precision of directivity are higher than those offered by comparable horn systems. Using screw-on flying fittings, several G3 systems can also be combined into a larger PA system. Due to the high sound level already obtained at 80 Hz, the system can also be complemented by large 18“ or 21“ subwoofers. The G3 is a 2-way active operated system. It is also available in a self-powered version with a 2x 1500 watt amplifier. The tilt and pivot frame included as standard facilitates simple alignment of the system.
Both ground stacked and flown applications are possible.



Speaker Components	6x 8” Neodym
	3x 1,4” Neodym
Description	curved cylindric wave radiator
Powerhandling - AES / Peak	LF: 1500 Watt / 4500 Watt
	HF: 225 Watt / 675 Watt
Impedance - nominal	LF: 6 Ω / HF: 6 Ω
SPL 1m - 1Watt / Peak	LF: 104dB / 138dB
	HF: 111dB / 140dB
Usable Range	80Hz - 18kHz
Coverage	80° x 20°
Rigging	1x M20 bottom
	10x M10
	U-Bracket
Handles	2x 3D handle
Weight	43,0kg
	45,0kg (dp Version)
Size - height x width x depth	67,1 x 51,2 x 48,2 cm
Order Number	00550
	00550/dp

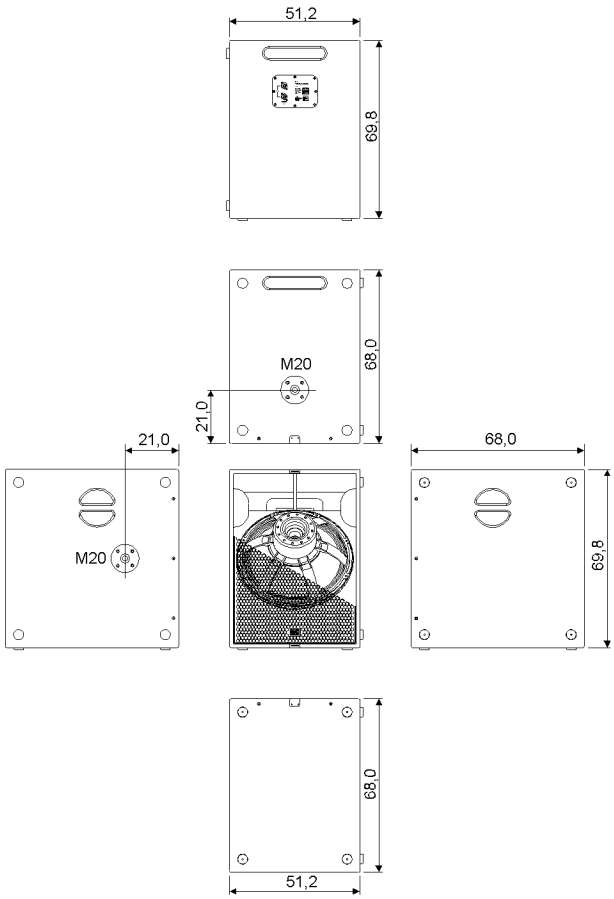




G Sub

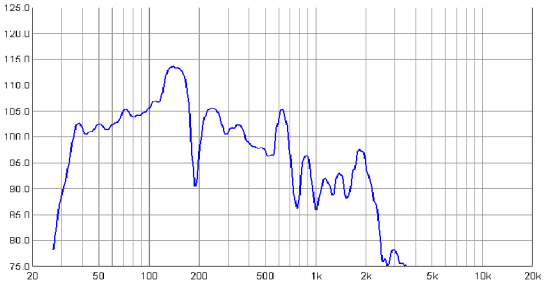
Bass Extension

The G-Sub is a high-performance subwoofer for universal applications and produces a high and undistorted low-range sound level starting at 35 Hz. The special cabinet design guarantees a long throw and low power compression.Depending on the requirement, the user can choose between two superb 18“ ND drivers – the 1800 watt version with a 135 mm voice coil and 70 mm excursion (peak to peak) and the smaller 1000 watt version with a 100 mm voice coil. The G-Sub convinces through ideal handling characteristicsand can be used both horizontally and vertically.
High-performance self-powered dp versions are also available.

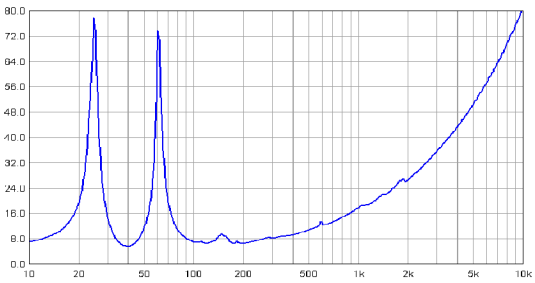


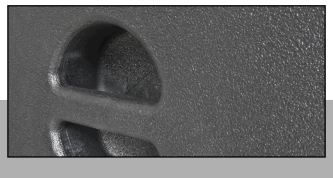
Speaker Components	18“ Nd
Description	Bass Extension
Powerhandling - AES / Peak	1800 Watt / 5400 Watt
Impedance - nominal	8 Ω
SPL 1m - 1Watt / Peak	103dB / 141dB
Usable Range	32Hz - 120Hz
Tuning Frequency - Excursion min.	42Hz
Connectors	2x Neutrik Speakon 4-pol
	Coding: 1+/- HiMid, 2+/- Sub
Handles	2x 2D handle - Side
	1x 2D corner handle
Fittings	2x M20 - Top and Side
	wheelboard fittings
Weight	43,0kg (1800W Version)
	38,0kg (1000W Version)
	+ 7,5kg (Wheelboard)
	+ 1,5kg (dp Version)
Size - height x width x depth	69,8 x 51,2 x 68,0 cm
Order Number	00600/1,8kW
	00600/1kW
	00600/dp

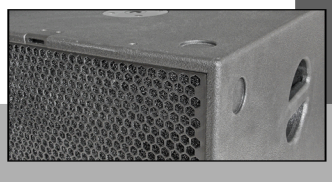
G-Sub Frequency response



G-Sub Impedance curve

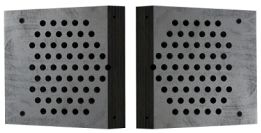






Conversion kit 120°

(consisting of 6 pcs. reflectors
incl. mounting material)

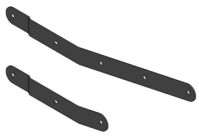


Order number: 08141/120°

Flying Bracket for GALEO
incl. screws

Order number: 01350 set

Connection Bar - short (for 2 units)
incl. screws



Order number: 08146

Connection Bar - long (up to 4 units)
incl. screws

Order number: 08147

Lifting eye bold - male - M20 DIN 580

Order number: 73700 (M20)

Lifting eye bold - male - M10 DIN 580

Order number: 73700 (M10)

Flange M20 for flying bracket

Order number: 08127

Flightcase for 2 pcs. G3 - Heavy Duty

Heavy duty version - compact size
Inserts for accessories

Order number: 16007

Wheelboard / Frontcover for G-Sub

Order number: 01260

G-Sub and G3
with connecting bar.

Speaker Pole, M20,
with wind up, K&M

Order number: 03023

Cover for G-Sub

Order number: 01256

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